

Climate Action Plan Open House Spring 2019



Tempe

Making waves in the desert

Overview

- Introduction (Dr. Braden Kay)
- Actions (Sustainability Commissioners)
 - Transportation
 - Energy and Energy Efficiency
 - Extreme Heat
- Open House (Dr. Lauren Withycombe Keeler)



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Climate Transformation



Purpose of Open House

- What actions should we take to join the global movement on addressing climate?
- What goals should we set to reduce our community greenhouse gas emissions?
- What strategies could Tempe use to support sustainability and resilience?

Climate Action Plan



As part of the City's Commitment with the Global Covenant of Mayors:

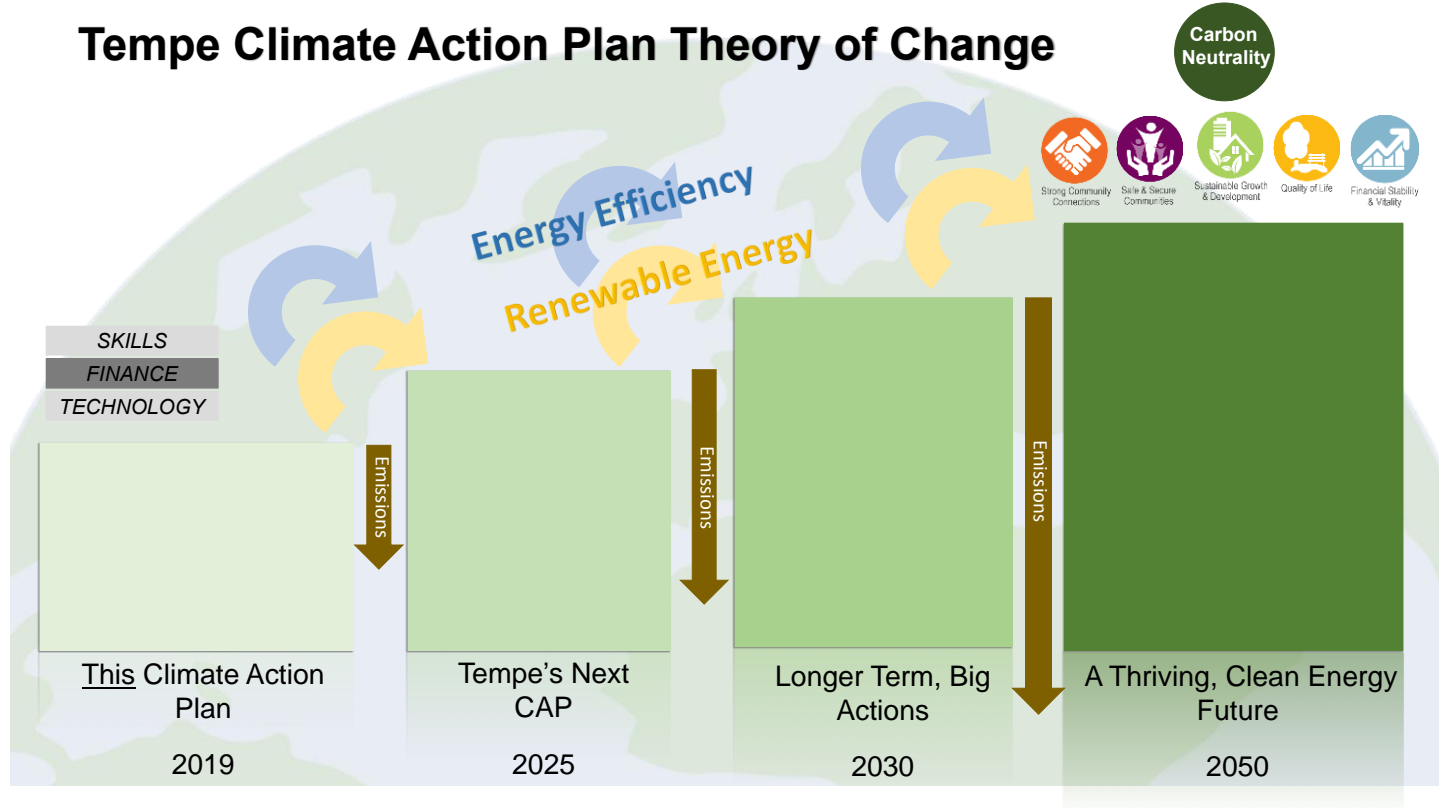
1. Letter of Intent from Mayor and Council
2. Complete a greenhouse gas emissions inventory
3. Will set a target to reduce GHG emissions
4. Develop Climate Action Plan on how Tempe will reduce GHG emissions

What Does a “Climate Action Plan” look like in Tempe?

- New **goal** for carbon reduction
- New **goal** for resilience to extreme heat
- Menu of **potential investments** (Including projects in current CIP, and projects to put in year 5 before next bond authorization)
- Develop **community support, and data** to support actions and investments (Partnership with ASU)



Tempe Climate Action Plan Theory of Change



Greenhouse Gas Inventory

- If you can't measure it you can't manage it
- Sets a baseline to set reduction targets
- Identifies major sources of emissions
- Measures effectiveness of programs over time

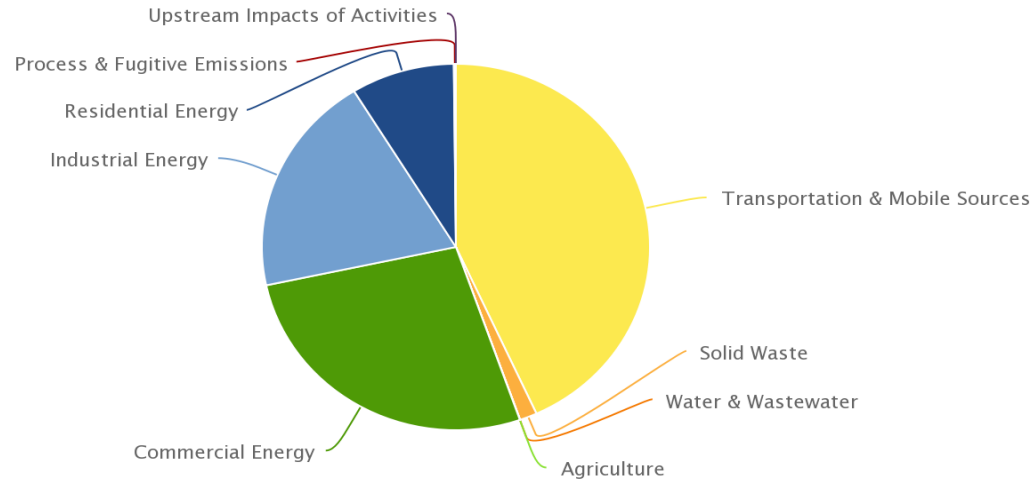


Greenhouse Gas Inventory

Total Emissions:

3,667,560 MT CO₂e

CO₂e across all categories for current inventory



Municipal Energy Investments

Energy Efficiency improvements in city facilities include:

- Efficiency
 - Water treatment
 - Street lights
 - Buildings
 - HVAC
 - Lighting
 - Controls
 - Energy Management System
- Renewable Energy
 - Solar Panels installed at 6 city facilities
 - Alternative fuels



What Areas Does our Climate Plan Address?

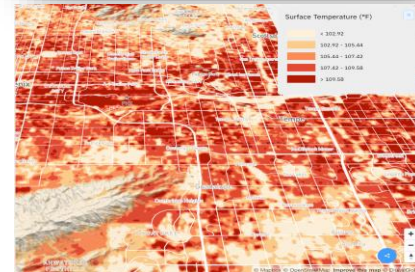
● Emissions reduction

- Energy
 - Business engagement
 - Renewables
 - Energy efficiency financing
- Transportation
 - 20 minute city (Demand response, transit and roadway configuration)
 - Electric vehicles
 - Autonomous vehicles



● Resilience

- Extreme heat
 - Emergency response
 - Building and landscape code
 - Urban forestry
- Drought
- Air Quality



Transformation



Extreme Heat



- **Hire an Emergency Manager that works on the city's resilience to extreme heat****
- **Further invest in Urban Forestry Master Plan to provide more shade in parks and along streets.**
- **Adopt Green Building Code with support for increasing shade and use of cool materials****
- **Adopt Green Infrastructure and low-impact development standards.**



Invest in shade



Photo Credit: Hanns Joosten

Green Infrastructure & Low Impact Development



Transportation



- **Invest in electric vehicle charging infrastructure and adopt building code changes that support electric vehicles.**
- **Prioritize safe and low-stress connections by walking, bike, or riding transit in all transportation projects.**
- **Create an urban core Transportation Demand Management program and a Transportation Management Association.****
- **Develop an automated mobility readiness guide and policy framework.**

Transportation Demand Mgmt



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EV Charging and Building Code



Energy & Energy Efficiency



- **Create a revolving fund to support energy upgrades to businesses and schools in Tempe.**
- **Pilot solar electric vehicle charging to capture and store energy during peak sunlight hours.**
- **Create a centralized sustainability platform to help businesses implement energy upgrades.**
- **Create resilient energy hubs with renewable energy and energy storage.****

Renewables for Businesses



U.S. CITIES WITH A COMMUNITY-WIDE 100% CLEAN ENERGY GOAL IN AT LEAST ONE SECTOR

Create resilient energy hubs with renewable energy and energy storage.



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**Climate Action Plan
Open House
Spring 2019
Dr. Lauren Withycombe Keeler**



Proposed Actions for Carbon Reduction

1 Hire an Emergency Manager that works on the city's resilience to extreme heat.

2 Further invest in Urban Forestry Master Plan to provide more shade in parks and along streets.

3 Adopt Green Building Code with support for increasing shade and use of cool materials.

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2 Pilot solar electric vehicle charging to store electricity during peak sunlight for use in homes.

3 Create a centralized sustainability platform to help businesses implement energy upgrades.

4 Create resilient energy hubs with renewable energy and energy storage.

Proposed Actions for Extreme Heat

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